

Abstract**Micro-mechanical device comprising a suspended element which is attached to a support by a pillar, and production method thereof**

A cavity is etched in a substrate and opens out onto the surface of the substrate facing the suspended element (1). The cavity has at least one broader zone having a cross-section which is greater than the cross-section of the cavity at said surface. A base (4) of the pillar (2), of complementary shape to the cavity, is buried in the cavity. The base (4) of the pillar (2) can form a dovetail assembly with the cavity of the substrate. This assembly is obtained by deposition, on a surface of the substrate, of a sacrificial layer and etching, in the sacrificial layer, of a hole passing through the sacrificial layer and reaching the surface of the substrate. The substrate is then etched, in the extension of the hole, so as to form the cavity of the substrate. Then a material designed to form the pillar (2) is deposited in the cavity and on the walls of the hole.

(Figure 3)